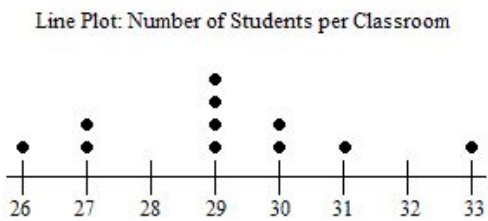


**Part I |** Use the data in the line plot below about class sizes from a local elementary school to answer questions 1-5



- How many classrooms are there? \_\_\_\_\_
- How many total students are there? \_\_\_\_\_
- How many classrooms have 30 students? \_\_\_\_\_
- Calculate the **mean**, **median**, **mode** and **range** of the data:

Organized data: \_\_\_\_\_

|  |  |
|--|--|
| <b>Mean:</b><br><br><br><br><br><br><br><br><br><br> | <b>Median:</b><br><br><br><br><br><br><br><br><br><br> |
| <b>Mode:</b><br><br><br><br><br><br><br><br><br><br> | <b>Range:</b><br><br><br><br><br><br><br><br><br><br>  |

5. Create a box and whisker plot of the data:

Lower Extreme: \_\_\_\_\_
 Quartile 2 (Median): \_\_\_\_\_

Upper Extreme: \_\_\_\_\_
 Quartile 3: \_\_\_\_\_

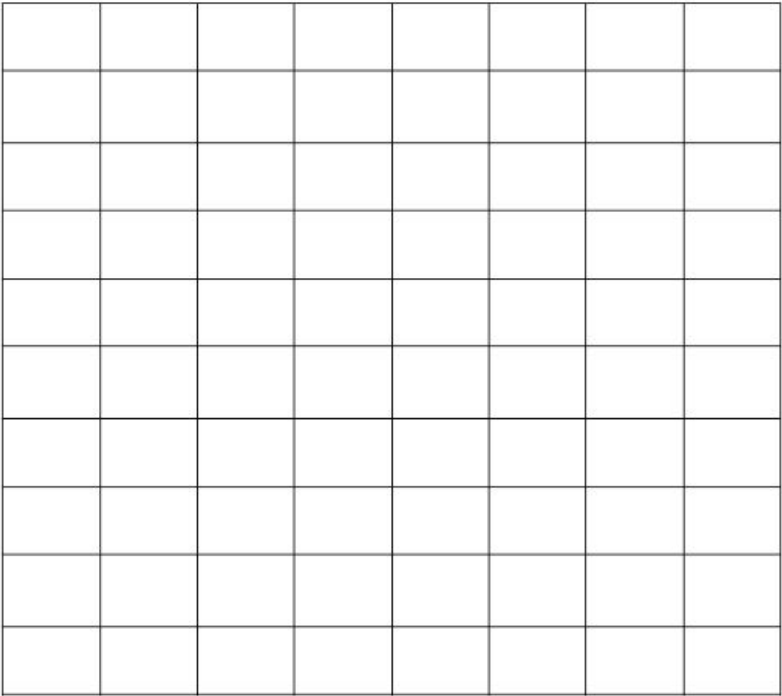
Quartile 1: \_\_\_\_\_

Part II | Creating and Interpreting Graphs

- 6.
- a. A line graph shows \_\_\_\_\_.
  - b. A bar graph is used to show \_\_\_\_\_.
7. Create a graph that would most appropriately display the data below. Be sure to include **labels** and a **title**:

Rockstar Jim’s music album had just been released. The number of fan followers from a leading social networking site for the first ten days are noted. Read the data and draw a line graph.


| Day | Number of Fans |
|-----|----------------|
| 1   | 300            |
| 2   | 500            |
| 3   | 550            |
| 4   | 800            |
| 5   | 600            |
| 6   | 700            |
| 7   | 850            |
| 8   | 600            |
| 9   | 450            |
| 10  | 300            |

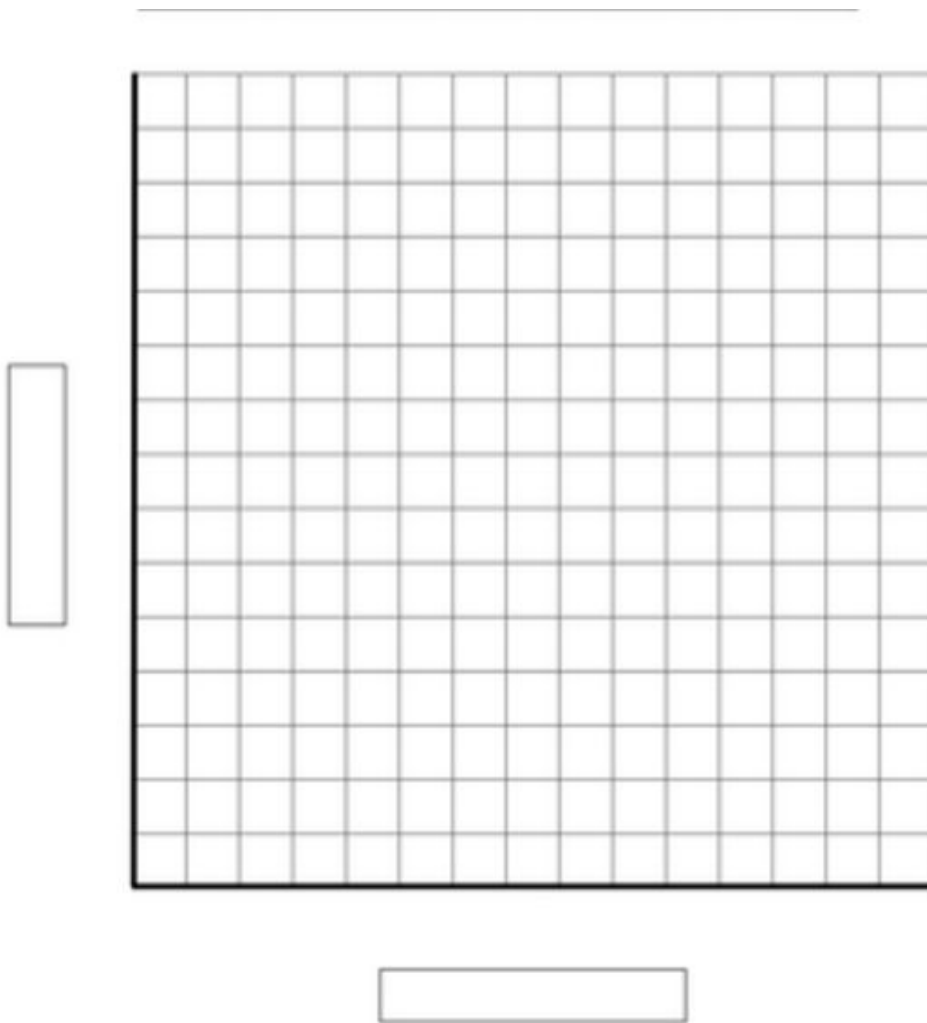


8. In 2-3 complete sentences, describe the trend of this graph in detail:

9. Create a graph the would most appropriately display the data below. Be sure to include **labels** and a **title**:

Happy Rhythms Music Store tracks the number of instruments they sell each month. Below is the data for the month of April.

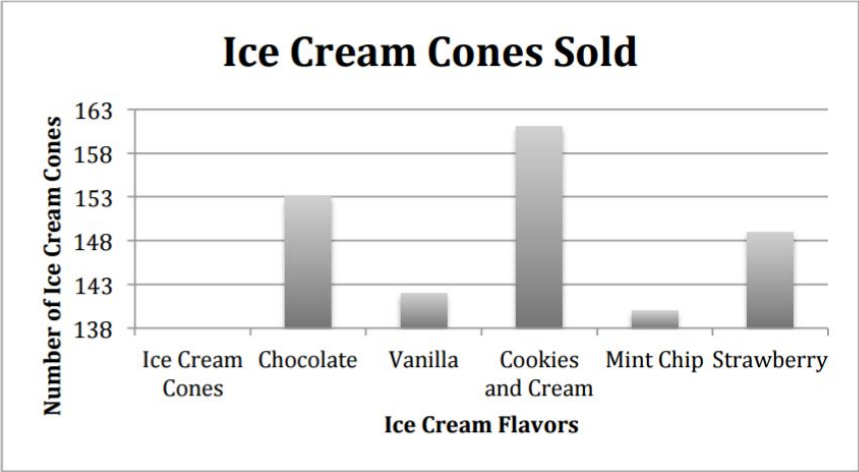
| Guitar  | Trumpet   | Drum  | Saxophone   | Piano   |
|---|---|---|---|---|
|  |  |  |  |  |
| 630   | 720   | 405   | 540   | 405   |



10. How many more trumpets were sold than guitars? \_\_\_\_\_

11. What is the range of this data? \_\_\_\_\_

Part III | Misleading Graphs



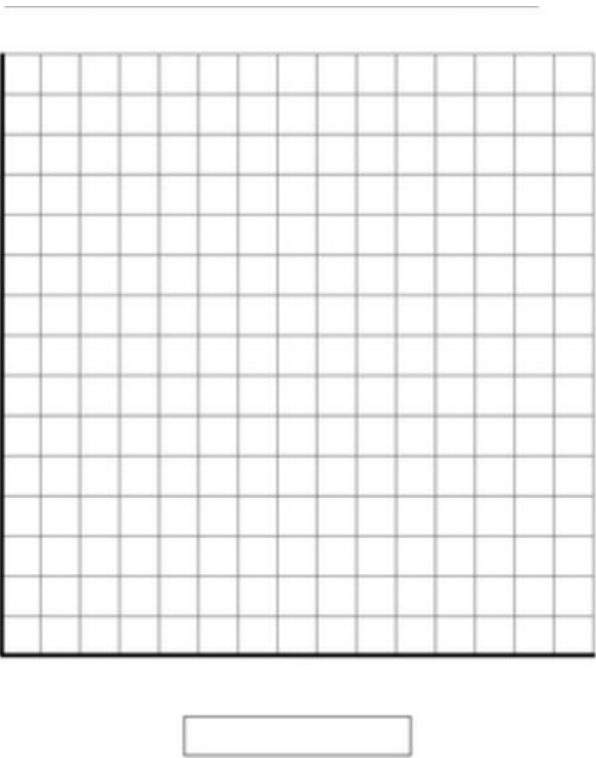
What is the range of values used for the scale? \_\_\_\_\_

How is this bar graph misleading? \_\_\_\_\_

\_\_\_\_\_

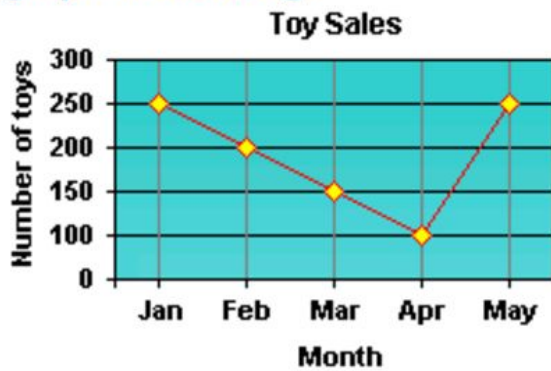
12. \_\_\_\_\_

13. Re-draw the graph above so that it is not misleading:



14.

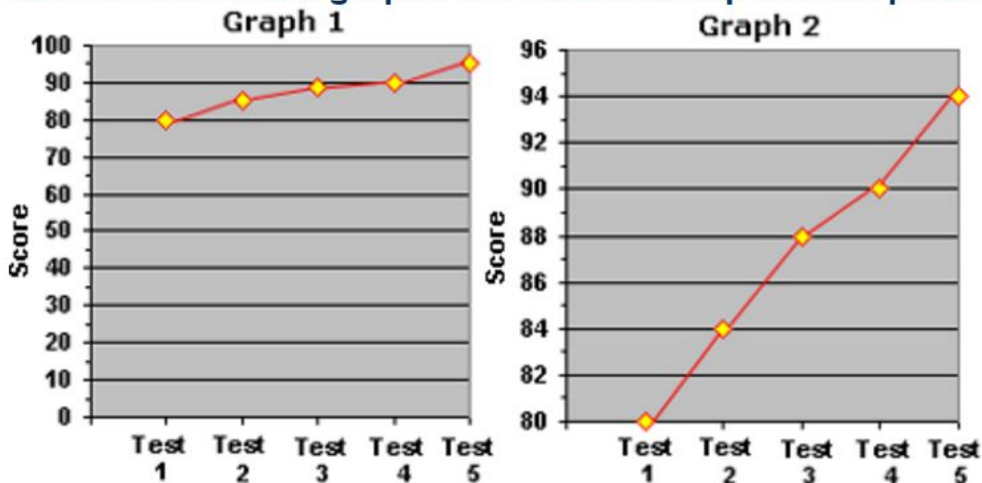
The graph represents the number of toys sold each month in a toy shop. Why is the graph misleading?



- a. ☐ Due to broken scale
- b. ☐ Number of toys sold after May is not known
- c. ☐ Uneven spacing on horizontal axis

15.

Charles wanted to impress his parents by showing the rapid increase in his score in 5 tests. Which of the graphs will he use to impress his parents?



Which graph should Charles use to impress his parents? \_\_\_\_\_

How does this graph make Charles' scores look like they are increasing more rapidly?

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